

What is claimed is:

- 1    1.    A computer for use in a pervasive computing system, comprising:
  - 2                 a wireless detector operable for detecting identifications from one or
  - 3                 more other computers;
  - 4                 a central processing unit coupled to the wireless detector; and
  - 5                 a memory coupled to the central processing unit such that in operation
  - 6                 the memory stores log entries for selected ones of the identifications and
  - 7                 further such that in operation the central processing unit of the computer
  - 8                 recognizes an event based upon a pattern recognition algorithm that
  - 9                 evaluates the log entries.
- 1    2.    The computer of claim 1 wherein the event is a reminder event.
- 1    3.    The computer of claim 1 wherein the event notifies a caregiver of a status of a  
2    patient.
- 1    4.    The computer of claim 1 wherein the pattern recognition algorithm operates  
2    based on a sequence of the identifications.
- 1    5.    The computer of claim 1 wherein at least one log entry includes a timestamp  
2    for indicating the time at which the corresponding identification is received.
- 1    6.    The computer of claim 5 wherein the pattern recognition algorithm operates  
2    based on timestamps for the identifications.
- 1    7.    The computer of claim 1 further comprising an output device coupled to the  
2    central processing unit such that in operation the central processing unit activates the  
3    output device upon recognizing the event and the output device provides an output  
4    signal to a user.
- 1    8.    The computer of claim 1 further comprising an input device coupled to the  
2    central processing unit such that in operation the user acknowledges receipt of the  
3    output signal via the input device.

1    9.    The computer of claim 1 wherein in operation the central processing unit  
2    notifies one or more of the other computers upon the central processing unit  
3    recognizing the event.

1    10.   The computer of claim 1 further comprising a base computer such that in  
2    operation the mobile computer occasionally transfers the log entries to the base  
3    computer.

1    11.   The computer of claim 1 further comprising a set of pattern recognition  
2    algorithms.

1    12.   The computer of claim 11 wherein in response to the event being recognized,  
2    the mobile computer modifies the set of pattern recognition algorithms.

1    13.   The computer of claim 11 wherein in the computer is mobile.

1    14.   The computer of claim 11 wherein in the computer is immobile.

1    15.   A pervasive computing system comprising:

2         a small computer, including a wireless detector operable for detecting  
3         identifications from one or more other small computers, a central  
4         processing unit coupled to the wireless detector, and a memory coupled to  
5         the central processing unit such that in operation the memory stores log  
6         entries for the identifications; and

7         a base computer such that in operation at least one of the small  
8         computers occasionally transfers the log entries to the base computer.

1    16.   The pervasive computing system of claim 15 wherein the base computer  
2    performs a data mining operation on the log entries.

1    17.   The pervasive computing system of claim 15 wherein the central processing  
2    unit of a first small computer recognizes an event based upon a pattern recognition  
3    algorithm that evaluates the log entries.

1    18.    The pervasive computing system of claim 17 wherein the event is a reminder  
2    event.

1    19.    The pervasive computing system of claim 17 wherein the event notifies a  
2    caregiver of a status of a patient.

1    . 20.    A pervasive computing system comprising a plurality of small computers,  
2    each small computer comprising:  
3                at least one of: a wireless emitter for emitting an identification over  
4                time; and a wireless receiver for detecting identifications emitted by others  
5                of the plurality of small computers over time;  
6                a central processing unit coupled to the at least one of the wireless  
7                emitter and the wireless detector; and  
8                a memory coupled to the central processing unit such that in operation  
9                the memory stores log entries for the detected identifications and further  
10                such that in operation the central processing unit of a first small computer  
11                recognizes an event based upon a pattern recognition algorithm that  
12                evaluates the log entries.

1    21.    The pervasive computing system of claim 20 wherein the event is a reminder  
2    event.

1    22.    The pervasive computing system of claim 20 wherein the event notifies a  
2    caregiver of a status of a patient.

1    23.    The pervasive computing system of claim 20 wherein the pattern recognition  
2    algorithm operates based on a sequence of the identifications.

1    24.    The pervasive computing system of claim 20 wherein at least one log entry  
2    includes a timestamp for indicating the time at which the corresponding identification  
3    is received.

1    25.    The pervasive computing system of claim 24 wherein the pattern recognition

2 algorithm operates based on timestamps for the identifications.

1 26. The pervasive computing system of claim 20 wherein the first small computer  
2 further comprises an output device coupled to the central processing unit such that in  
3 operation the central processing unit activates the output device upon recognizing the  
4 event and the output device provides an output signal to a user.

1 27. The pervasive computing system of claim 20 further comprising a base  
2 computer such that in operation the first small computer occasionally transfers the log  
3 entries to the base computer.

1 28. A method for a pervasive computer system comprising the steps of:  
2 receiving identifications over time;  
3 making a log entry for selected ones of the identifications;  
4 running a pattern recognition algorithm on the log entries which  
5 recognizes a event; and  
6 notifying a person of the event.

1 29. The method of claim 28 wherein the pattern recognition algorithm operates  
2 based on a sequence of the identifications.

1 30. The method of claim 28 wherein at least one log entry includes a timestamp  
2 for indicating the time at which the corresponding identification is received.

1 31. The method of claim 28 wherein the pattern recognition algorithm operates  
2 based on timestamps for the identifications.

1 32. The method of claim 28 further transferring the log entries to the base  
2 computer.

1 33. The method of claim 28 wherein the event is a reminder event.

1 34. The method of claim 28 wherein a plurality of small computers provide the  
2 identifications.

1    35.    The method of claim 34 wherein at least some of the plurality of small  
2    computers are located at various places.

1    36.    The method of claim 34 wherein at least one of the plurality of small  
2    computers is attached to a thing.

1    37.    The method of claim 36 wherein the step of running the pattern recognition  
2    algorithm determines that the thing was taken by the person from the first place to the  
3    second place, that later the person left the second place without the thing, and that  
4    leaving the second place without the thing comprises the reminder event.

1    38.    The method of claim 36 wherein the step of running the pattern recognition  
2    algorithm determines that the person left the first place and arrived at the second place  
3    without the thing and that arriving at the second place without the thing comprises the  
4    reminder event.

1    39.    The method of claim 28 wherein the event notifies a caregiver of a status of a  
2    patient.

1    40.    The method of claim 39 wherein a first small computer worn by the patient  
2    receives the identifications.

1    41.    The method of claim 40 wherein a plurality of second small computers  
2    provide the identifications and further wherein the plurality of second small  
3    computers are located at various places within an environment for the patient.

1    42.    A computer readable memory comprising computer code for implementing a  
2    method of reminding a person upon a lapse of human memory, the method of  
3    reminding the person upon the lapse of human memory comprising the steps of:  
4                receiving identifications over time;  
5                making a log entry for selected ones of the identifications;  
6                running a pattern recognition algorithm on the log entries which  
7                recognizes a event; and

8                    notifying a person of the event.

1     43.   A method of employing a network of first small computers to monitor a  
2   patient comprising the steps of:

3                    receiving identifications at a second small computer worn by the  
4   patient, the identifications indicating location of the patient over time;  
5                    issuing a timestamp for at least some of the identifications, thereby  
6   forming timestamp-identification pairs;

7                    making a log entry for at least some of the timestamp-identification  
8   pairs;

9                    running a pattern recognition algorithm on the log entries which  
10   recognizes a notification event; and

11                  notifying a caregiver of the notification event.

1     44.   A computer readable memory comprising computer code for implementing a  
2   method of monitoring a patient by a caregiver, the method comprising the steps of:

3                    receiving identifications at a second small computer worn by the  
4   patient, the identifications indicating location of the patient over time;  
5                    issuing a timestamp for at least some of the identifications, thereby  
6   forming timestamp-identification pairs;

7                    making a log entry for at least some of the timestamp-identification  
8   pairs;

9                    running a pattern recognition algorithm on the log entries which  
10   recognizes a notification event; and

11                  notifying a caregiver of the notification event.